



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

**SURFACE MOUNT
NPN Silicon RF Transistor**

VOLTAGE 11 Volts CURRENT 50 mAmpere

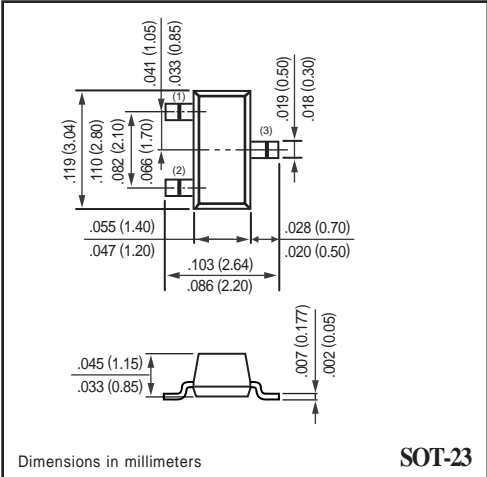
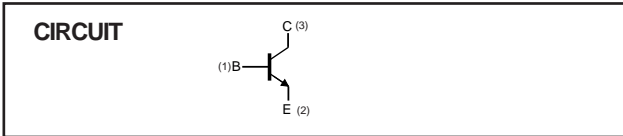
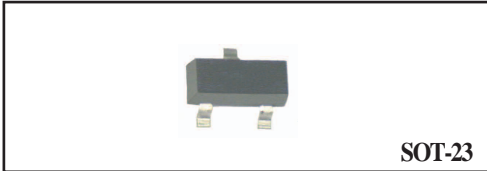
CHRT5993GP

APPLICATION
 * UHF Converter
 * Local Oscillator

FEATURE
 * Small surface mounting type. (SOT-23)
 * High Transition frequency.

CONSTRUCTION
 * NPN RF Transistor

MARKING
 * R01



LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CBO}	collector-base voltage	open emitter	-	20	V
V _{CEO}	collector-emitter voltage	open base	-	11	V
V _{EBO}	emitter-base voltage	open collector	-	3	V
I _C	collector current (DC)		-	50	mA
P _C	Collector power dissipation		-	0.2	W
T _{stg}	storage temperature		-50	+150	°C
T _j	junction temperature		-	150	°C

Note

1. Transistor mounted on an FR4 printed-circuit board.

RATING CHARACTERISTIC CURVES (CHRT5993GP)

CHARACTERISTICS

T_{amb} = 25 °C unless otherwise specified.

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BVCBO	20	-	-	V	IC= 10uA, IE= 0A
Collector-emitter breakdown voltage	BVCEO	11	-	-	V	IC= 1mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	3	-	-	V	IE= 10uA, IC= 0A
Collector cut-off current	ICBO	-	-	0.5	uA	VCB= 10V, IE= 0A
Emitter cut-off current	IEBO	-	-	0.5	uA	VEB= 2V, IE= 0A
DC current gain	hFE	56	-	180	-	VCE= 10V, IC= 5mA
Collector-emitter saturation voltage	VCE(sat)	-	-	0.5	V	IC= 10mA, IB= 5mA
Transition frequency	f T	1400	3200	-	MHz	VCE= 10V, IE= -10mA
Collector output capacitance	Cob	-	0.8	1.5	pF	VCB= 10V, f = 1MHz, IE= 0A

RATING CHARACTERISTIC CURVES (CHRT5993GP)

Figure 1. Collector-Emitter Saturation Voltage vs Collector Current

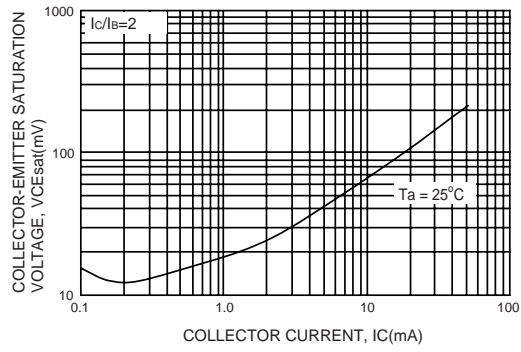


Figure 2. Collector-Base Voltage vs Collector Output Capacitance

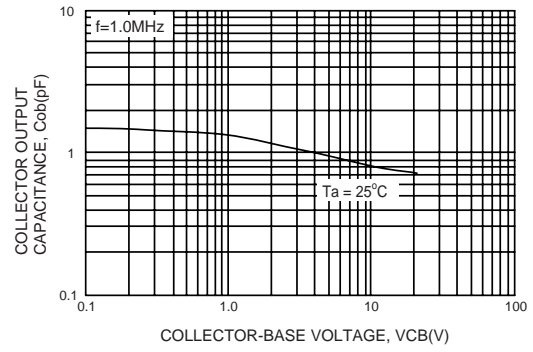


Figure 3. DC Current Gain

